

## ACOUSTIC ATTRACTION OF HERONS BY CRICKETS

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*Abstract.*—Male crickets of the species *Anurogryllus celerinictus* attract mates after sunset by giving a loud sustained calling song. A predator, the heron, *Florida coerulea* uses this sound to locate its prey. *F. coerulea* was also attracted to a tape recorded song of *A. celerinictus*.

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It was first suggested by Lutz (1924) that predators such as frogs, lizards and birds likely hear and respond to insect sounds. Walker (1964) experimentally demonstrated that domestic cats can acoustically locate singing orthopteran prey. Cade (1975) and Soper et al. (1976) reported on dipteran parasites orienting to the sound of their insect prey. Bird predators should be capable of hearing songs of certain Grylloidea (Marler, 1955). Yet, no one has shown that birds locate insect prey by using the prey's sound(s).

In May, 1978, at Ocho Rios, Jamaica I observed an adult little blue heron, (*Florida coerulea*) to orient to a tape-recorded calling song of the fast-calling, short-tailed cricket, *Anurogryllus celerinictus* (Walker). The heron(s) was observed to stalk, catch and eat crickets, at night between the hours of 20:00 and 22:00 EDT. This time period coincides with the crickets' peak acoustical activity (Bell, In Press). Many of the villagers were familiar with these, "dark, cricket-eating sea gulls." During daylight hours the same species of heron fished shallow, slow-moving freshwater streams.

Two Philips tweeters were positioned 5 M apart, magnets down on a flat lawn. Over one speaker, using a Uher 4000 Report L, the recorded calling song of a male *A. celerinictus* was played for 20 min. periods. The second speaker was silent. On one occasion an adult *F. coerulea* was approximately 30 M from the speakers when a recording was begun. Immediately the heron turned toward the speakers. It approached the live speaker, stalking slowly and turning its head from side to side. The heron came within 1 m of the live speaker, and was never closer than 5 m from the silent speaker. After seeing myself and the recorder the heron turned away from both speakers, walked a few steps (1 m), and caught and ate a cricket.

Male *A. celerinictus* call to attract females for the purposes of mating. Being nocturnal singers, and associated with burrows, these crickets escape most daytime predators. However, herons appear to locate these crickets in the dark by orienting to the cricket's song.

### Acknowledgments

I thank Maureen E. Bell for assistance in the field. This study was funded in part by the Zoology Department and Erindale College, University of Toronto, by Dr. Glenn K. Morris through the National Research Council grant #4946, and an Ontario Graduate Scholarship to PB.

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Received for publication October 18, 1978.